To:	Eric Gobler for email distrib'n	**Date:**	2/26/04
via:	email	**cc:**	Sylvia Hamilton/SMNA

Subject: **February 13, 2004 PCAG Meeting Minutes**

A meeting of the Perchlorate Community Advisory Group was held at the San Martin Lions Club, 12415 Murphy Avenue, San Martin, on February 13, 2004.

1. **Pledge:** The Chair, Ms. Sylvia Hamilton, led the Pledge.

2. **Introductions:** See the sign-in roster for attendees. The Committee members and audience did self-introductions.

3. **Administrative Items**

3a. Additional Agenda Items: The Chair added two agenda items, 3f and 3g.

3b. Attendee Sign-In Sheet: Interested parties should add their name and contact information to the sign-in sheet on the back table to get on the mailing list.

3c. Approve January 9, 2004 meeting minutes: The minutes were approved as presented.

3d. Approval of proposed meeting dates: The meeting dates were approved as presented.

3e. Comment cards: Comment cards were distributed for persons wishing to make comments on items not on the agenda.

The Chair moved to Item 4.

4. **RWQCB Update:** Mr. David Athey of the Regional Water Quality Control Board (RWQCB) provided an update on the status of the Olin/Standard Fusee case. The RWQCB met with Olin regarding Olin's Northeast Flow Assessment work plan and will approve the work plan in a letter to be issued the week of February 16, 2004. Olin has submitted their 3rd Quarter Monitoring Report and the RWQCB will be meeting with Olin next week to discuss off-site monitoring. The RWQCB approved Olin's Replacement Water Evaluation Outline. The report is due April 16, 2004. Olin submitted their 4th Quarter Monitoring Report to the RWQCB and sent copies to Ms. Hamilton, Mr. Thomas Mohr of the Santa Clara Valley Water District, and electronically. Olin and the Office of Environmental Health Hazard Assessment are on the RWQCB's agenda for the March 19, 2004 meeting in Salinas to discuss health risks from perchlorate. The onsite groundwater treatment system has been installed at the Tennant Avenue site. Water is treated using ion exchange before it is discharged to the Butterfield Retention Ponds. The RWQCB participated in the February 5, 2004 Perchlorate Working Group meeting. Lastly, the RWQCB met with Olin regarding Olin's soil treatment feasibility study. Olin has agreed to excavate and treat (onsite) hot spots; the remainder of the site will be treated with in-situ bioremediation.

The Chair returned to Item 3f.

3f. Repository: Ms. Evelyn Heinrichs reported that there are two repositories with information on the Olin case and perchlorate. One is at the Morgan Hill library and the second is at Gavilan College's Morgan Hill campus. Much of the information is on CDs. Ms. Heinrichs will be maintaining the repositories, including providing information on how to find more information on the internet, the inventory of the repository, and PCAG products. She encouraged everyone to use the repositories to increase their knowledge on this issue and to give her their input on the usefulness and worth of the repositories.

The Chair moved to Item 5.

5. Soil Feasibility Study Report: The Chair introduced Mr. Rick McClure of Olin Corporation. Both Ms. Hamilton and Mr. McClure stressed the importance of education in problem solving. Mr. McClure distributed a list of Olin's accomplishments on the Olin/Standard Fusee case and then introduced Mr. Evan Cox of GeoSyntec Consultants as an expert in perchlorate remediation. Mr. Cox made a presentation entitled, "Onsite Remediation of Perchlorate in Soil and Groundwater." Mr. McClure provided a copy of the presentation (enclosed), so the presentation is only summarized here.

- Onsite characterization is complete
- The maximum perchlorate concentration in soil is below the industrial cleanup standard, but soils with perchlorate concentrations above 7.8 mg/L will be excavated and treated onsite. Remaining soil will be treated in-situ.
- Soil remediation is anticipated to be completed within two years
- The groundwater containment system will capture all onsite groundwater
- The ion exchange treatment system will eliminate perchlorate from onsite groundwater

The following questions were answered by Mr. Cox.

Q. What is the waste disposal process for ion exchange?
A. The resin, with the perchlorate attached, is destroyed completely by burning it as fuel at an offsite location.

Q. If treated groundwater is discharged to the Butterfield Pond, can it dilute insitu groundwater?
A. Yes.

Q. Where does the chloride that is displaced during ion exchange go?
A. Into the water stream, but in the part per billion range. Native groundwater contains chloride in the part per million range.

Q. How does one know when there is breakthrough of the first vessel in the ion exchange treatment system?
A. Samples are collected weekly from between the lead and lag vessels, as well as from the treatment system influent and effluent.

Q. How long will groundwater cleanup take?
A. Several years; depends on perchlorate concentrations in soil.

Q. What are the seven black tanks?
A. Baker tanks for temporary water storage?

Q. It looks like there is a smaller ion exchange treatment system on the site. What is that for?
A. It is a temporary treatment system installed by Mactec. It doesn't have a power source and was used for treating the water in the Baker tanks.

Q. Will it be several years before the groundwater treatment system keeps polluted water from going offsite?
A. No. The groundwater extraction and treatment system will keep contaminated water from going offsite. The effectiveness of hydraulic containment and treatment will be monitored and reported. This is sound science.

Q. How big is target area for soil remediation?
A. 65,000 square feet. The next steps include developing the Remedial Action Plan and the 90% Design report. Approximately 4 of the 13 acres at the site will be treated?

Q. What process takes only months to complete?
A. Bioremediation of excavated soil. In-situ soil treatment will take about 2 to 3 years.

Q. How significant an impact would heavy rainfall have on the soil remediation process?
A. Very little, since annual rainfall in this area is relatively low.

Q. What are the cumulative impacts of leaving soil contaminated below the cleanup goal in place?
A. The proposed remediation plan is designed to ensure that the 4 part per billion Action Level is achieved in groundwater.

Q. What is the use of the other wells shown on the figures?
A. They are for monitoring and are not needed for capturing groundwater from the site.

Q. What is the detection limit being used to measure perchlorate concentrations in the ion exchange treatment system effluent? Is 100% of the perchlorate removed?
A. The treatment goal is less than 4 part per billion, as required by the Regional Water Quality Control Board.

Q. Are you adding microbes?
A. No.

Q. If perchlorate is easily degraded and the bacteria are already present, why is groundwater treatment necessary?
A. The bacteria need an electron donor to degrade perchlorate and groundwater does not have an electron donor. There are potential consequences of adding chemicals to groundwater.

Q. Is there a level at which perchlorate concentrations are too low for degradation?
A. Yes, but it is very low, in the part per trillion range.

Q. Will degradation occur more quickly in the summer?
A. In theory, yes, but it is already very quick. Also, you don't want the soil to get too hot, because then it will dry out and there is a maximum temperature at which the bacteria can survive.

Q. How deep will you be excavating?
A. The details will be in the design report, based on the 430 soil sample results collected.

Q. What is the effect of the bioremediation on nitrate?
A. Nitrate concentrations will also be reduced.

Q. Is some of the extracted groundwater staying onsite?
A. Yes, to assist with soil remediation.

At the conclusion of the Olin/GeoSyntec presentation, Mr. Eric Gobler of the RWQCB reported that the RWQCB will be meeting with Olin regarding the soil remediation plan around April 16, 2004. If people have comments on the plan, they should try to provide them to the RWQCB before then.

The Chair moved to Item 7.

7. Groundwater Guardian Program: The team will meet again and report back at the next PCAG meeting on its progress.

The Chair moved to Item 3g.

3g. Community's Response to RWQCB Letter to PCAG: Community members should get back to the Chair with their input on the letter.

The meeting was adjourned.

NEXT PCAG MEETING: *Friday, March 12, 2004, 2 - 4 pm at San Martin Lions Club Hall, 12415 Murphy Ave., San Martin.* Agenda items to Sylvia Hamilton (sylvialrs@hotmail.com).

Minutes submitted by Tracy Hemmeter